



MAR 21 2005

PTO/USPTO/08A/10-01
Approved for use through 10/31/2002. OMB 0511-0031
US Patent & Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

449A/PTO
**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Use as many sheets as necessary)

Complete if Known

Application Number	10/696,729
Filing Date	October 29, 2003
First Named Inventor	Freeberg, Scott
Group Art Unit	3762
Examiner Name	Unknown

Sheet 1 of 7

Attorney Docket No: 279.652US1

US PATENT DOCUMENTS

Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Filing Date if Appropriate
DR	US-2002/0058877 A1	05/16/2002	Baumann, L. S., et al.	10/25/2001
	US-2002/0107552 A1	08/08/2002	Krig, D. B., et al.	11/13/2001
	US-2002/0107553 A1	08/08/2002	Hill, M. R., et al.	10/26/2001
	US-2002/0123768 A1	09/05/2002	Gilkerson, J. O.	12/18/2001
	US-2002/0123769 A1	09/05/2002	Panken, Eric J., et al.	12/14/2000
	US-2003/0069609 A1	04/10/2003	Thompson, D L.	10/09/2001
	US-2003/0114889 A1	06/19/2003	Huvelle, E., et al.	02/06/2003
	US-2004/0049237 A1	03/11/2004	Larson, D. E., et al.	07/12/2002
	US-2004/0093035 A1	05/13/2004	Schwartz, M., et al.	11/08/2002
	US-2004/0102908 A1	05/27/2004	Larson, D. E., et al.	11/27/2002
	US-2004/0116820 A1	06/17/2004	Daum, D. R., et al.	12/13/2002
	US-5,014,698	05/14/1991	Cohen, T. J.	10/02/1989
	US-5,179,946	01/19/1993	Weiss, Steven M.	11/26/1990
	US-5,203,326	04/20/1993	Collins, Kenneth A.	12/18/1991
✓	US-5,269,301	12/14/1993	Cohen, T. J.	10/19/1992
	US-5,300,093	04/05/1994	Koestner, Ken , et al.	09/14/1992
DR	US-5,314,449	05/24/1994	Lindgren, Anders	02/17/1993

EXAMINER

/Darin Roberts/

DATE CONSIDERED

05/30/2006

Substitute Disclosure Statement Form (PTO-1449)
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional) 2 Applicant is to place a check mark here if English language Translation is attached

INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>		<i>(Complete if Known)</i>	
		Application Number	10/696,729
		Filing Date	October 29, 2003
		First Named Inventor	Freeberg, Scott
		Group Art Unit	3762
		Examiner Name	Unknown
Sheet 2 of 7		Attorney Docket No: 279.652US1	

DR	US-5,341,811	08/30/1994	Cano, G. G.	03/26/1991
	US-5,354,317	10/11/1994	Alt, Eckhart	04/03/1992
	US-5,431,687	07/11/1995	Kroll, Mark W.	04/09/1993
	US-5,437,285	08/01/1995	Verrier, Richard L., et al.	11/30/1993
	US-5,480,412	01/02/1996	Mouchawar, Gabriel, et al.	11/16/1993
	US-5,531,772	07/02/1996	Prutchi, David	11/18/1994
	US-5,626,624	05/06/1997	Schaldach, Max , et al.	09/16/1993
	US-5,685,316	11/11/1997	Schookin, Sergei I., et al.	04/08/1996
	US-5,700,283	12/23/1997	Salo, Rodney W.	11/25/1996
	US-5,718,720	02/17/1998	Prutchi, D., et al.	12/13/1996
	US-5,722,997	03/03/1998	Nedungadi, A. P., et al.	09/17/1996
	US-5,749,900	05/12/1998	Schroepel, E. A., et al.	12/11/1995
	US-5,755,671	05/26/1998	Albrecht, P , et al.	10/05/1995
	US-5,792,194	08/11/1998	Morra,	09/27/1996
	US-5,836,987	11/17/1998	Baumann, Lawrence S., et al.	03/12/1997
	US-5,842,997	12/01/1998	Verrier, R. L., et al.	04/30/1997
	US-5,891,044	04/06/1999	Golosarsky, Boris , et al.	01/10/1997
	US-5,921,940	07/13/1999	Verrier, R. L., et al.	11/04/1997
	US-5,935,081	08/10/1999	Kadhiresan, V. A.	01/20/1998
	US-5,978,707	11/02/1999	Krig, David B., et al.	10/08/1997
	US-5,978,710	11/02/1999	Prutchi, D. , et al.	01/23/1998
	US-5,987,356	11/16/1999	DeGroot, P. J.	08/12/1998
	US-6,021,351	02/01/2000	Kadhiresan, V. A., et al.	06/25/1999
	US-6,022,322	02/08/2000	Prutchi, David	02/06/1998
	US-6,026,320	02/15/2000	Carlson, G. M., et al.	06/08/1998
	US-6,035,233	03/07/2000	Schroepel, Edward A., et al.	01/09/1998
	US-6,042,548	03/28/2000	Giuffre, K. A.	11/14/1997
	US-6,058,331	05/02/2000	King, Gary W.	04/27/1998
	US-6,073,048	06/06/2000	Kieval, Robert S., et al.	11/17/1995
	US-6,135,970	10/24/2000	Kadhiresan, V. A., et al.	12/07/1999
	US-6,144,878	11/07/2000	Schroepel, E. A., et al.	01/05/1900
	US-6,151,524	11/21/2000	Krig, David B., et al.	08/18/1999
	US-6,317,632	11/13/2001	Krig, D B., et al.	10/11/2000
	US-6,358,201	03/19/2002	Childre, Doc L., et al.	03/02/1999
	US-6,370,424	04/09/2002	Prutchi, David	12/14/1999
	US-6,371,922	04/16/2002	Baumann, Lawrence S., et al.	04/07/2000
	US-6,390,986	05/21/2002	Curcie, David J., et al.	01/31/2000
	US-6,473,644	10/29/2002	Terry Jr., Reese S., et al.	10/13/1999
	US-6,511,500	01/28/2003	Rahme, Marc M.	06/06/2000
	US-6,522,914	02/18/2003	Huvelle, Etienne	07/14/2000
▼	US-6,522,926	02/18/2003	Kieval, Robert S., et al.	09/27/2000
	US-6,529,772	03/04/2003	Carlson, G. M., et al.	06/25/2001
DR	US-6,571,121	05/27/2003	Schroepel, Edward A., et al.	10/15/2001

EXAMINER

/Darin Roberts/

DATE CONSIDERED 05/24/2006

INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>		<i>Complete if Known</i>	
		Application Number	10/696,729
		Filing Date	October 29, 2003
		First Named Inventor	Freeberg, Scott
		Group Art Unit	3762
Examiner Name Unknown			
Sheet 3 of 7		Attorney Docket No: 279.652US1	

DR	US-6,571,122	05/27/2003	Schroepel, Edward A., et al.	10/15/2001
DR	US-6,611,713	08/26/2003	Schauerte, Patrick	11/30/2000
DR	US-6,647,289	11/11/2003	Prutchi, D.	12/06/2001
DR	US-6,690,971	02/10/2004	Schauerte, P., et al.	11/30/2000

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	T ²
DR	EP-0555988A2	08/18/1993	Steinhaus, Bruce M., et al.	
DR	EP-0709058A1	01/05/1996	Alessandri, N.	
DR	WO-00/44274	08/03/2000	Pougatchev, V. I., et al.	

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume+issue number(s), publisher, city and/or country where published.	T ²
DR		"Heart Rate Variability: Standards of Measurement, Physiological Interpretation, and Clinical Use", <u>European Heart Journal</u> , 17, Prepared by the Task Force of The European Society of Cardiology and The North American Society of Pacing and Electrophysiology; published by the American Heart Association, Inc.; European Society of Cardiology,(1996),pp. 354 - 381	
DR		BEHRENS, S., "Effects of Amiodarone on the Circadian Pattern of Sudden Cardiac Death (Department of Vererans Affairs Congestive Heart Failure-Survival Trial of Antiarrhythmic Therapy)", <u>Am. J. Cardiol.</u> , 80(1), (July 1997),45-48	
DR		BEHRENS, S., "Modification of the Circadian Pattern of Ventricular Tachyarrhythmias by Beta-Blocker Therapy", <u>Clin. Cardiol.</u> , 20(3), (March 1997),253-257	
DR		BERGER, R. D., "An Efficient Algorithm for Spectral Analysis of Heart Rate Variability", <u>IEEE Transactions on Biomedical Engineering</u> , BME-33 (9), (September 1986),900-904	
DR		BIGGER, J. T., "Correlations Among Time and Frequency Domain Measures of Heart Period Variability Two Weeks After Acute Myocardial Infarction", <u>Arrhythmias and Conduction Disturbances</u> , 69, (April 1, 1992),891-898	
DR		BIGGER, JR., J. T., "Spectral Analysis of R-R Variability to Evaluate Autonomic Physiology and Pharmacology and to Predict Cardiovascular Outcomes in Humans", <u>Am. J. Cardiol.</u> , 69(9), (April 1, 1992),891-898	
DR		BILGUTAY, A M., "A new concept in the treatment of hypertension utilizing an implantable electronic device: "Baropacer""", <u>Trans Am Soc Artif Intern Organs.</u> , 10, (1964),387-95	

EXAMINER

/Darin Roberts/

DATE CONSIDERED

05/30/2006

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>		<i>Complete if Known</i>	
		Application Number	10/696,729
		Filing Date	October 29, 2003
		First Named Inventor	Freeberg, Scott
		Group Art Unit	3762
		Examiner Name	Unknown
Sheet 4 of 7		Attorney Docket No: 279.652US1	

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No'	Include name of the author (In CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T'
DR		BILGUTAY, A M., "Vagal tuning for the control of supraventricular arrhythmias", <u>Surgical Forum</u> , 16, (1965),151-3	
		BILGUTAY, AYDIN M., "Vagal tuning. A new concept in the treatment of supraventricular arrhythmias, angina pectoris, and heart failure", <u>Journal of Thoracic and Cardiovascular Surgery</u> , 56(1), (July 1968),71-82	
		BÖCKER, D., "Ventricular Resynchronization Therapy May Restore Autonomic Balance as Evidenced by Redicung the Low Frequency to High Frequency Autonomic Ratio in Heart Failure Patients", <u>4th International Meeting organized by the Working Group on Heart Failure of the European Society of Cardiology (Abstract)</u> , Barcelona, Spain,(June 11, 2001),1 p.	
		BORST, C , "Optimal frequency of carotid sinus nerve stimulation in treatment of angina pectoris", <u>Cardiovascular Research</u> , 8(5), (September 1974),674-80	
		BRAUNWALD, E , "Carotid sinus nerve stimulation in the treatment of angina pectoris and supraventricular tachycardia", <u>California Medicine</u> , 112(3), (March 1970),41-50	
		BRAUNWALD, E , "Relief of angina pectoris by electrical stimulation of the carotid-sinus nerves", <u>New England Journal of Medicine</u> , 277(24), (December 14, 1967),1278-83	
		COOPER, T B., "Neural effects on sinus rate and atrioventricular conduction produced by electrical stimulation from a transvenous electrode catheter in the canine right pulmonary artery", <u>Circulation Research</u> , 46(1), (January 1980),48-57	
		COURTICE, G P., "Effect of frequency and impulse pattern on the non-cholinergic cardiac response to vagal stimulation in the toad, <u>Bufo marinus</u> ", <u>Journal of the Autonomic Nervous System</u> , 48(3), (August 1994),267-72	
		CRAWFORD, MICHAEL H., "ACC/AHA Guidelines for Ambulatory Electrocardiography", <u>JACC</u> , Vol. 34, No. 3, Published by Elsevier Science Inc.,(September 1999),912-948	
		DART JR, C H., "Carotid sinus nerve stimulation treatment of angina refractory to other surgical procedures", <u>Annals of Thoracic Surgery</u> , 11(4), (April 1971),348-59	
		DE LANDSHEERE, D., "Effect of spinal cord stimulation on regional myocardial perfusion assessed by positron emission tomography", <u>American Journal of Cardiology</u> , 69(14), (May 1, 1992),1143-9	
▼		EPSTEIN, S E., "Treatment of angina pectoris by electrical stimulation of the carotid-sinus nerves", <u>New England Journal of Medicine</u> , 280(18), (May 1, 1969),971-8	
DR		FARREHI, C , "Stimulation of the carotid sinus nerve in treatment of angina pectoris", <u>American Heart Journal</u> , 80(6), (December 1970),759-65	

EXAMINER

/Darin Roberts/

DATE CONSIDERED

05/30/2006

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Complete if Known	
		Application Number	10/696,729
		Filing Date	October 29, 2003
		First Named Inventor	Freeberg, Scott
		Group Art Unit	3762
		Examiner Name	Unknown
Sheet 5 of 7		Attorney Docket No: 279.652US1	

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No *	Include name of the author (In CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
DR		FELICIANO, L , "Vagal nerve stimulation releases vasoactive intestinal peptide which significantly increases coronary artery blood flow", <u>Cardiovascular Research</u> , 40(1), (October 1998),45-55	
		FROMER, M , "Ultrarapid subthreshold stimulation for termination of atrioventricular node reentrant tachycardia", <u>Journal of the American College of Cardiology</u> , 20(4), (October 1992),879-83	
		HAYANO, J. , "Circadian Rhythms of Atrioventricular Conduction Properties in Chronic Atrial Fibrillation With and Without Heart Failure", <u>JACC</u> , 31 (1), (January 1998),pp. 158-166	
		HENNING, R J., "Effects of autonomic nerve stimulation, asynchrony, and load on dP/dt _{max} and on dP/dt _{min} ", <u>American Journal of Physiology</u> , 260(4 Pt 2), (April 1991),H1290-8	
		HENNING, R J., "Vagal nerve stimulation increases right ventricular contraction and relaxation and heart rate", <u>Cardiovascular Research</u> , 32(5), (November 1996),846-53	
		HENNING, R J., "Vagal stimulation attenuates sympathetic enhancement of left ventricular function", <u>American Journal of Physiology</u> , 258(5 Pt 2), (May 1990),H1470-5	
		JESSURUN, G A., "Coronary blood flow dynamics during transcutaneous electrical nerve stimulation for stable angina pectoris associated with severe narrowing of one major coronary artery", <u>American Journal of Cardiology</u> , 82(8), erratum appears in Am J Cardiol 1999 Feb 15;83(4):642,(October 15, 1998),921-6	
		LAVERY, C. E., "Nonuniform Nighttime Distribution of Acute Cardiac Events", <u>Circulation</u> , 96(10), (November 18, 1997),3321-3327	
		MANNHEIMER, C , "Epidural spinal electrical stimulation in severe angina pectoris", <u>British Heart Journal</u> , 59(1), (January 1988),56-61	
		MANNHEIMER, C , "Transcutaneous electrical nerve stimulation (TENS) in angina pectoris", <u>Pain</u> , 26(3), (September 1986),291-300	
		MANNHEIMER, C , "Transcutaneous electrical nerve stimulation in severe angina pectoris", <u>European Heart Journal</u> , 3(4), (August 1982),297-302	
		MAZGALEV, T N., "Autonomic modification of the atrioventricular node during atrial fibrillation: role in the slowing of ventricular rate", <u>Circulation</u> , 99(21), (June 1, 1999),2806-14	
DR		MURPHY, D F., "Intractable angina pectoris: management with dorsal column stimulation", <u>Medical Journal of Australia</u> , 146(5), (March 2, 1987),260	
		NO AUTHORS LISTED, "Heart rate variability: standards of measurement, physiological interpretation and clinical use. Task Force of the European Society of Cardiology and the North American Society of Pacing and Electrophysiology", <u>Circulation</u> , 93(5), (March 1, 1996),1043-1065	

EXAMINER

/Darin Roberts/

DATE CONSIDERED

05/30/2006

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>		<i>Complete if Known</i> Application Number 10/696,729 Filing Date October 29, 2003 First Named Inventor Freeberg, Scott Group Art Unit 3762 Examiner Name Unknown	
Sheet 6 of 7		Attorney Docket No: 279.652US1	

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
DR		PECKOVA, M. , "Circadian Variations in the Occurrence of Cardiac Arrests", <u>Circulation</u> , 98 (1), (1998),pp. 31-39	
		PETERS, T K., "Temporal and spatial summation caused by aortic nerve stimulation in rabbits. Effects of stimulation frequencies and amplitudes", <u>Journal of the Autonomic Nervous System</u> , 27(3), (August 1989),193-205	
		PETERS, T K., "The principle of electrical carotid sinus nerve stimulation: a nerve pacemaker system for angina pectoris and hypertension therapy", <u>Annals of Biomedical Engineering</u> , 8(4-6), (1980),445-458	
		SCHAUERTE, P , "Catheter stimulation of cardiac parasympathetic nerves in humans: a novel approach to the cardiac autonomic nervous system", <u>Circulation</u> , 104(20), (November 13, 2001),2430-2435	
		SCHAUERTE, P N., "Transvenous parasympathetic cardiac nerve stimulation: an approach for stable sinus rate control", <u>Journal of Cardiovascular Electrophysiology</u> , 10(11), (November 1999),1517-1524	
		SCHAUERTE, P , "Transvenous Parasympathetic Nerve Stimulation in the Inferior Vena Cava and Atrioventricular Conduction", <u>Journal of Cardiovascular Electrophysiology</u> , 11(1), (January 2000),64-69	
		SCHAUERTE, P , "Ventricular rate control during atrial fibrillation by cardiac parasympathetic nerve stimulation: a transvenous approach", <u>Journal of the American College of Cardiology</u> , 34(7), (December 1999),2043-2050	
		SCHERLAG, M A., "Endovascular Neural Stimulation Via a Novel Basket Electrode Catheter: Comparison of Electrode Configurations", <u>Journal of Interventional Cardiac Electrophysiology</u> , 4(1), (April 2000),219-224	
		TAKAHASHI, N , "Vagal modulation of ventricular tachyarrhythmias induced by left ansae subclaviae stimulation in rabbits", <u>Japanese Heart Journal</u> , 39(4), (July 1998),503-511	
		VANOLI, E , "Vagal stimulation and prevention of sudden death in conscious dogs with a healed myocardial infarction", <u>Circulation Research</u> , 68(5), (May 1991),1471-1481	
		WALLICK, D W., "Selective AV nodal vagal stimulation improves hemodynamics during acute atrial fibrillation in dogs", <u>American Journal of Physiology - Heart & Circulatory Physiology</u> , 281(4), (October 2001),H1490-7	
		WANINGER, M S., "Electrophysiological control of ventricular rate during atrial fibrillation", <u>Pacing & Clinical Electrophysiology</u> , 23(8), (August 2000),1239-44	
		YAMASHITA, T. , "Circadian Variation of Paroxysmal Atrial Fibrillation", <u>Circulation</u> , 96 (5), (Sept. 2, 1997),pp. 1537-1541	
DR		ZHANG, Y , "Optimal ventricular rate slowing during atrial fibrillation by feedback AV nodal-selective vagal stimulation", <u>American Journal of Physiology - Heart & Circulatory Physiology</u> , 282(3), (March 2002),H1102-10	

EXAMINER

/Darin Roberts/

DATE CONSIDERED

05/30/2006

INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>		<i>Complete if Known</i>	
		Application Number	10/696,729
		Filing Date	October 29, 2003
		First Named Inventor	Freeberg, Scott
		Group Art Unit	3762
Examiner Name Unknown			
Sheet 7 of 7		Attorney Docket No: 279.652US1	

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	DR	ZHOU, X., "Prevention of high incidence of neurally mediated ventricular arrhythmias by afferent nerve stimulation in dogs", <u>Circulation</u> , 101(7), (February 22, 2000), 819-24	

EXAMINER

/Darin Roberts/

DATE CONSIDERED 05/30/2006

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

152

ADS 10/04/2004
Applicant: Scott Freeberg

Title: CROSS-CHECKING OF TRANSTHORACIC IMPEDANCE AND ACCELERATION
SIGNS

DOCKET NO. 279.652US1

Filed: October 29, 2003

Examiner: Unknown

Serial No.: 10/696,729

Due Date: N/A

Group Art Unit: 3762

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

We are transmitting herewith the following attached items (as indicated with an "X"):

A return postcard.
 A Communication Concerning Related Applications (2 pgs.).
 An Information Disclosure Statement (2 pgs.), Form 1449 (2 pgs.), and copies of 12 cited documents.

If not provided for in a separate paper filed herewith, Please consider this a PETITION FOR EXTENSION OF TIME for sufficient number of months to enter these papers and please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

Customer Number 21186

By: D.W. Black
Atty: David W. Black
Reg. No. 42,331

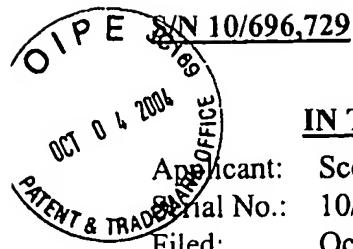
CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 30th day of September, 2004.

Name

JAMES KANYSIK

Signature

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
(GENERAL)



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Scott Freeberg Examiner: Unknown
Serial No.: 10/696,729 Group Art Unit: 3762
Filed: October 29, 2003 Docket: 279.652US1
Title: CROSS-CHECKING OF TRANSTHORACIC IMPEDANCE AND
ACCELERATION SIGNALS

INFORMATION DISCLOSURE STATEMENT

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with 37 C.F.R. §§ 1.97 *et. seq.*, the enclosed materials are brought to the attention of the Examiner for consideration in connection with the above-identified patent application. Applicant respectfully requests that this Information Disclosure Statement be entered and the documents listed on the attached Form 1449 be considered by the Examiner and made of record. Pursuant to the provisions of MPEP 609, Applicant requests that a copy of the 1449 form, initialed as being considered by the Examiner, be returned to the Applicant with the next official communication.

Pursuant to 37 C.F.R. §1.97(b), it is believed that no fee or statement is required with the Information Disclosure Statement. However, if an Office Action on the merits has been mailed, the Commissioner is hereby authorized to charge the required fees to Deposit Account No. 19-0743 in order to have this Information Disclosure Statement considered.

INFORMATION DISCLOSURE STATEMENT

Serial No :10/696,729

Filing Date: October 29, 2003

Title: CROSS-CHECKING OF TRANSTHORACIC IMPEDANCE AND ACCELERATION SIGNALS

Page 2
Dkt: 279.652US1

The present application is a U.S. national patent application filed after June 30, 2003. Thus, Applicant believes that the U.S. Patent & Trademark Office has waived the requirement under 37 C.F.R. 1.98 (a)(2)(i) for submitting a copy of each cited U.S. patent and each U.S. patent application publication. The waiver is provided in a pre-OG notice from the U.S. Patent & Trademark Office entitled "Information Disclosure Statements May Be Filed Without Copies of U.S. Patents and Published Applications in Patent Applications filed after June 30, 2003" and dated July 11, 2003. Applicant acknowledges the requirement to submit copies of foreign patent documents and non-patent literature in accordance with 37 C.F.R. 1.98(a)(2).

The Examiner is invited to contact the Applicant's Representative at the below-listed Telephone number if there are any questions regarding this communication.

Respectfully submitted,

SCOTT FREEBERG

By his Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. Box 2938
Minneapolis, MN 55402
(612) 373-6911

Date

September 30, 2004 By D. W. Black

David W. Black

Reg. No. 42,331

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 30TH day of September, 2004.

JAMES KAVUSIK
Name

James Kavusik
Signature

RE-SEARCH
S/N 10/696,729

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Scott Freeberg

Examiner: Unknown

Serial No.: 10/696,729

Group Art Unit: 3762

Filed: October 29, 2003

Docket: 279.652US1

Title:

CROSS-CHECKING OF TRANSTHORACIC IMPEDANCE AND
ACCELERATION SIGNALS

COMMUNICATION CONCERNING RELATED APPLICATIONS

MS Amendment

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Applicant would like to bring to the Examiner's attention the following related applications in the above-identified patent application:

<u>Serial/Patent No.</u>	<u>Filing Date</u>	<u>Attorney Docket</u>	<u>Title</u>
09/032,731 6,076,015	February 27, 1998	279.078US1	RATE ADAPTIVE CARDIAC RHYTHM MANAGEMENT DEVICE USING TRANSTHORACIC IMPEDANCE
09/316,690 6,161,042	May 21, 1999	279.078US2	RATE ADAPTIVE CARDIAC RHYTHM MANAGEMENT DEVICE USING TRANSTHORACIC IMPEDANCE
09/492,912 6,463,326	January 20, 2000	279.078US3	RATE ADAPTIVE CARDIAC RHYTHM MANAGEMENT DEVICE USING TRANSTHORACIC IMPEDANCE
10/735,598	December 12, 2003	279.441US1	AUTOMATICALLY CONFIGURABLE MINUTE VENTILATION SENSOR
10/612,388	July 2, 2003	279.582US1	CARDIAC CYCLE SYNCHRONIZED SAMPLING OF IMPEDANCE SIGNAL

COMMUNICATION CONCERNING RELATED APPLICATIONS

Serial Number: 10/696,729

Filing Date: October 29, 2003

Title: CROSS-CHECKING OF TRANSTHORACIC IMPEDANCE AND ACCELERATION SIGNALS

Page 2

Dkt: 279.652US1

10/268,023 October 8, 279.078US4
2003/0105499 2002
A1

RATE ADAPTIVE CARDIAC RHYTHM
MANAGEMENT DEVICE USING
TRANSTHORACIC IMPEDANCE

Respectfully submitted,

SCOTT FREEBERG

By Applicant's Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. Box 2938
Minneapolis, MN 55402
(612) 373-6911

Date September 30, 2004

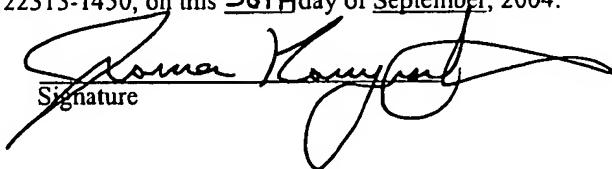
By



David W. Black
Reg. No. 42,331

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 30th day of September, 2004.

JAMES KAN YUSIK
Name



Signature

Substitute for form 1449A/PTO
**INFORMATION DISCLOSURE
 STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Application Number	10/696,729
Filing Date	October 29, 2003
First Named Inventor	Freeberg, Scott
Group Art Unit	3762
Examiner Name	Unknown

Attorney Docket No: 279.652US1

Sheet 1 of 3

US PATENT DOCUMENTS

Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	Filing Date If Appropriate
DR	US-2003/0105499 A1	06/05/2003	Hartley, J. W., et al.	607	17	10/08/2002
	US-3,896,817	07/29/1975	Hursen, Thomas F., et al.	128	419R	08/04/1972
	US-4,596,251	06/24/1986	Plicchi, G., et al.	128	419 PG	10/10/1984
	US-4,686,987	08/18/1987	Salo, Rodney W., et al.	128	419 PG	03/29/1982
	US-4,702,253	10/27/1987	Nappholz, T. A., et al.	128	419 PG	10/15/1985
	US-4,722,351	02/02/1988	Phillipps, P. G., et al.	128	696	01/31/1986
	US-4,781,201	11/01/1988	Wright, J. C., et al.	128	671	07/22/1996
	US-4,827,935	05/09/1989	Geddes, , et al.	128	419	04/24/1986
	US-4,830,008	05/16/1989	Meer,	128	421	02/16/1988
	US-4,858,611	08/22/1989	Elliott, C. D.	128	419 P	06/03/1987
	US-4,901,725	02/20/1990	Nappholz, T. A., et al.	128	419	01/29/1988
	US-4,966,146	10/30/1990	Webb, S. C., et al.	128	419 PG	01/11/1989
	US-5,027,813	07/02/1991	Pederson, B. D., et al.	128	419	03/05/1990
	US-5,063,927	11/12/1991	Webb, S. C., et al.	128	419 PG	02/16/1989
	US-5,074,303	12/24/1991	Hauck, J. A.	128	419	03/08/1990
	US-5,085,215	02/04/1992	Nappholz, T. A., et al.	128	419 PG	03/20/1990
	US-5,137,019	08/11/1992	Pederson, B. D., et al.	128	419	03/01/1991
	US-5,156,147	10/20/1992	Warren, J. A., et al.	128	419.0 PG	02/05/1991
	US-5,190,035	03/02/1993	Salo, R. W., et al.	128	419	04/17/1986
	US-5,197,467	03/30/1993	Steinhaus, B. M., et al.	128	419 PG	06/22/1992
	US-5,199,428	04/06/1993	Obel, Israel W., et al.	128	419 C	03/22/1991
	US-5,201,808	04/13/1993	Steinhaus, B. M., et al.	128	419 PG	02/10/1992
	US-5,235,976	08/17/1993	Spinelli, Julio C.	607	25	12/13/1991
	US-5,249,572	10/05/1993	Bonnet, J-L.	607	20	12/23/1991
	US-5,271,395	12/21/1993	Wahlstrand, John D., et al.	607	9	04/17/1992
DR	US-5,273,034	12/28/1993	Nilsson, K.	607	18	04/22/1992
	US-5,284,136	02/08/1994	Hauck, John A., et al.	607	24	05/13/1991
DR	US-5,300,094	04/05/1994	Kalikok, et al.	607	042	03/19/1992
DR	US-5,303,702	04/19/1994	Bonnet, J-L , et al.	607	20	12/23/1991
DR	US-5,318,597	06/07/1994	Hauck, J. A., et al.	607	20	03/15/1993

EXAMINER

/Darin Roberts/

DATE CONSIDERED

05/24/2006

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use as many sheets as necessary)



Complete if Known

Application Number	10/696,729
Filing Date	October 29, 2003
First Named Inventor	Freeberg, Scott
Group Art Unit	3762
Examiner Name	Unknown

Attorney Docket No: 279.652US1

DR	US-5,379,776	01/10/1995	Murphy, A. J., et al.	128	705	12/01/1993
	US-5,391,190	02/21/1995	Pederson, B. D., et al.	607	23	04/07/1992
	US-5,423,870	06/13/1995	Olive, , et al.	607	18	11/22/1993
	US-5,441,524	08/15/1995	Rueter, , et al.	607	18	08/30/1993
	US-5,507,785	04/16/1996	Deno, Don C.	607	24	12/21/1994
	US-5,524,632	06/11/1996	Stein, , et al.	128	733	05/19/1995
	US-5,540,733	07/30/1996	Testerman, , et al.	607	42	09/21/1994
	US-5,562,711	10/08/1996	Yerich, Charles G., et al.	607	17	11/30/1994
	US-5,562,712	10/08/1996	Steinhaus, , et al.	607	20	11/25/1994
	US-5,626,622	05/06/1997	Cooper, D.	607	18	09/21/1994
	US-5,792,208	08/19/1998	Gray,	607	36	06/30/1997
	US-5,800,470	09/01/1998	Stein, Paul M., et al.	607	20	03/11/1996
	US-5,817,135	10/06/1998	Cooper, D. , et al.	607	17	05/02/1997
	US-5,817,136	10/06/1998	Nappholz, T. A., et al.	607	17	05/02/1997
	US-5,824,020	10/20/1998	Cooper, D.	607	17	05/02/1997
	US-5,824,029	10/20/1998	Weijand, K. J., et al.	607	122	04/28/1994
	US-5,836,976	11/17/1998	Min, , et al.	607	6	04/30/1997
	US-6,006,134	12/21/1999	Hill, Michael R., et al.	607	9	04/30/1998
	US-6,044,294	03/28/2000	Mortazavi, S. , et al.	600	547	12/13/1996
	US-6,076,015	06/13/2000	Hartley, Jesse W., et al.	607	20	02/27/1998
	US-6,161,042	12/12/2000	Hartley, J. W., et al.	607	20	05/21/1999
▼	US-6,415,183	07/02/2002	Scheiner, A. , et al.	607	42	12/09/1999
	US-6,459,929	10/01/2002	Hopper, Donald , et al.	600	513	04/12/2000
DR	US-6,463,326	10/08/2002	Hartley, J. W., et al.	607	20	01/20/2000

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	T ²
DR	DE-2805482	03/05/1987	Hofmann, G. H.	A61B	5/04	
DR	EP-0003567A1 (w/ English Abstract)	08/22/1979	Hofmann, G. H.	A61B	5/04	
DR	EP-0940155A2	09/08/1999	Bougeois, I., et al.	A61N	1/36	
DR	EP-447024A2	09/18/1991	Hauck, J. A.	A61N	1/365	
DR	EP-702977A2	03/27/1996	Testerman, R. L.	A61N	1/36	
DR	EP-765632A2	04/02/1997	Addiss, R. R.	A61B	5/08	
DR	FR-2305168	10/22/1976	Milleret, M.	A61H	31/00	
DR	WO-9406512A1	03/31/1994	Schaldach, M.	A61N	1/365	

EXAMINER

/Darin Roberts/

DATE CONSIDERED

05/24/2006

Substitute Disclosure Statement Form (PTO-1449)

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional) ² Applicant is to place a check mark here if English language Translation is attached

Substitute for form 1449A/PTO

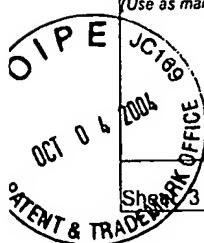
**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Use as many sheets as necessary)

Complete if Known

Application Number	10/696,729
Filing Date	October 29, 2003
First Named Inventor	Freeberg, Scott
Group Art Unit	3762
Examiner Name	Unknown

Sheet 3 of 3

Attorney Docket No: 279.652US1

**OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
DR		FREEBERG, S. , "AUTOMATICALLY CONFIGURABLE MINUTE VENTILATION SENSOR", <u>US Patent Application Ser. No. 10/735,598</u> , filed December 12, 2003 (279.441US1), 35 Pages	
DR		HAUCK, JOHN A., "A Minute Ventilation Sensor Derived from Intra-thoracic Electric Impedance as a Cardiac Pacemaker Rate Modulator", <u>University of Minnesota Master Thesis</u> , (June 1993),Pages 80-86 & 97	
DR		JACKSON, LELAND B., "Chapter 11 / Quantization Effects", <u>Digital Filters and Signal Processing</u> , 2d Edition, Kluwer Academic Publishers,(1989),Pages 297-340	
DR		KIM, J. , et al., "CARDIAC CYCLE SYNCHRONIZED SAMPLING OF IMPEDANCE SIGNAL", <u>US Application Ser. No. 10/612,388</u> , filed July 2, 2003 (279.582US1), 28 Pages	

EXAMINER

/Darin Roberts/

DATE CONSIDERED

05/24/2006